Product Evaluation

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: FR-44

Effective Date: February 1, 2017
Re-evaluation Date: February 2021

Product Name: Premier SIPS Structural Insulated Panels (SIP)

Manufacturer: Insulfoam, a Carlisle Company
17001 Fish Point Road
Prior Lake, MN 55372
(253) 882-5289

General Description:
Premier SIPS structural insulated panels are factory-assembled, engineered-wood-faced, structural insulated panels (SIP) with an expanded polystyrene (EPS) foam core. The panels are intended for use as load-bearing or non-load bearing wall panels, roof panels, floor panels, and headers.

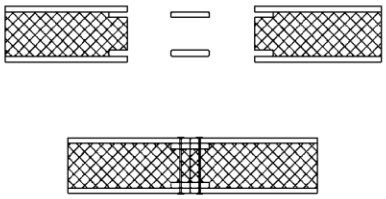
Panels are available in 3-1/2" through 11-1/4" core thicknesses. The panels are custom made to the specifications for each use and are assembled under factory-controlled conditions. The maximum panel size is 10' wide and up to 24-ft in length.

Facings consist of two single-ply oriented strand board (OSB) facings a minimum of 7/16" thick conforming to APA PRN-610 and DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16. The panels may be manufactured with the facing strength axis oriented in either direction with respect to the direction of SIP panel bending provided the appropriate strength values are used.

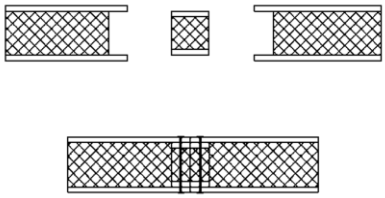
The core material is expanded polystyrene (EPS) foam.

Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the lamination process in accordance with the in-plant quality control manual.

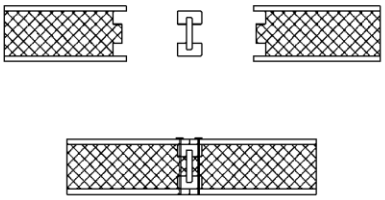
The SIPS are interconnected with surface splines or block splines (Type S panels), engineered structural splines (Type I panels), or dimensional lumber splines (Type L panels). Refer to Figure 1 for SIP spline types.



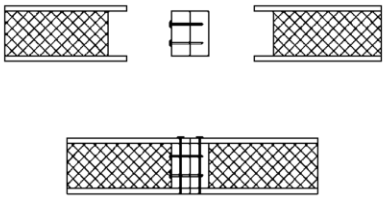
Surface Spline (Type S)



Block Spline (Type S)



Engineered Lumber Spline (Type I)



Dimensional Lumber Spline (Type L)

Figure 1. SIP Spline Types

Product Identification: Each Premier SIP must bear a permanent label that includes the NTA, Inc. listing and the NTA listing number PRS032808-3.

Installation:
General: Premier SIPs must be fabricated and erected in accordance with this evaluation report, the approved construction documents and the applicable building code. In the event of a conflict between the manufacturer's published installation instructions and this evaluation report, this evaluation report must govern. Approved construction documents must be available at all times on the jobsite during installation.

Approved Construction Documents: The following approved construction documents must be available at the jobsite:

- Premier SIPs Design Manual, October 2014
- Premier SIPs Installation Guide, Rev 12-11
- Design drawings as described in this evaluation report

Structures built using the Premier SIPs must be designed by a Texas licensed professional engineer. Requirements for the design of the SIPs must be based on the tables and details specified in this evaluation report and the manufacturer's installation requirements. The tables presented in this evaluation report are for the design of the SIPs for walls, roof, floors, and headers. The design of chords, struts, and connections (such as the attachment of diaphragms to chords and struts, the attachment of the SIPS to the foundation, and the hardware required to resist uplift, shear, and the overturning of the shearwall segments) must be designed separately by a Texas licensed engineer. Design drawings must include complete instructions for the connection and installation of the SIP panels. The design drawings must be sealed and dated by a Texas licensed professional engineer. The design drawings must reference the appropriate edition of the wind load standard (ASCE 7) used based on the current building specifications adopted by the TDI. The basic wind speed and the Exposure Category used for the design must also be referenced.

Premier SIPs are interconnected with surface splines or block splines, dimensional lumber splines, or engineered structural splines. Surface splines consist of 3" or 4" wide by minimum 7/16" thick Oriented Strand Board (OSB). Block splines are manufactured in the same manner as the overall SIP panel except with an overall thickness that is 1" less than the overall thickness of the panel to be joined. Dimensional lumber splines consist of one or more plies of dimensional lumber. Structural splines consist of one or more plies of dimensional lumber or an engineered wood product. Splines shall be secured in place with not less than 0.113" x 2.375" smooth shank nails (0.275" head diameter), 6 inches on center on both sides of the SIP, or an approved equivalent fastener. All joints must be sealed in accordance with the Premier SIPs installation instructions. Alternate spline connections may be required for panels subject to in-plane shear forces. Such panels must be interconnected exactly as required in Table 6, or as directed by a Texas licensed professional engineer.

The top and bottom plates of the panels must be dimensional or engineered lumber sized to match the core thickness of the panel. The plates must be secured using not less than 0.113" x 2.375" smooth shank nails (0.275" head diameter) spaced 6" on center on both sides, or an approved equivalent fastener as directed by a Texas licensed professional engineer. Alternate plate connections may be required for panels subject to in-plane shear forces. Such panels must be interconnected exactly as required in Table 6, or as directed by a Texas licensed professional engineer.

Design loads: Design wind loads for the SIPs must be determined using the wind load requirements for the structure as specified in the building specifications adopted by the TDI. All loads on the SIPs must not exceed the allowable loads specified in load design charts.

Load Design Charts: Allowable axial, transverse, and racking loads for the SIPs must be as specified in Tables 1-7 of this evaluation report. NOTE: The requirements specified in the tables in this evaluation report must govern if there are any conflicts between the manufacturer's Load Design Charts and the tables and figures in this evaluation report.

Foundation: The foundation is considered to be part of the structure and must be considered part of the design for the structure. If the foundation is not designed by the engineer responsible for the design of the SIP system, then the design plans for the SIP system must indicate such. As a minimum, the design plans must indicate how the SIP system is to be anchored to the foundation. If the foundation is included as part of the design, then the design plans must include all details and specifications related to the design of the foundation to resist the specified wind loads and must indicate how the structure is to be anchored to the foundation.

Roof Coverings: The design plans must indicate the requirements for the roof covering. The roof covering must comply with the building specifications adopted by the TDI. For roof coverings other than asphalt shingles, the design plans must specify the design pressure requirements for the roof covering. The roof covering must be installed as required to resist wind pressure.

Exterior wall coverings: Exterior wall coverings must be installed as required to resist wind pressure. Products must comply with the building specifications adopted by the TDI. The design plans must specify the design pressure requirements for the exterior wall coverings. The panels must be covered on the exterior side with a water-resistive barrier as required by the applicable code. The water-resistive barrier must be attached with flashing to provide a continuous water-resistive barrier behind the exterior wall covering.

Windows, doors, garage doors, skylights, and roof vents: Products must be installed as specified in evaluation reports to resist wind pressure. Products must comply with the building specifications adopted by the TDI. The design plans must specify the design pressured requirements for the products. The design plans must indicate if the products are required to be windborne debris resistant. Windborne debris resistant products must be installed as specified in evaluation reports to resist wind pressure and windborne debris.

Shutters: The design plans must indicate if impact protective systems (shutters) are required. Products must be installed as specified in evaluation reports or the building specifications adopted by the TDI as required to resist wind pressure and windborne debris. Products must comply with the building specifications adopted by the TDI. The design plans must specify the design pressures requirements for the shutters.

Note:A set of sealed plans, manufacturer's installation instructions, Premier SIPs Load Design Charts for SIPs (Structural Insulated Panels), and this product evaluation report must be available to the inspector at the job site at all times. Use fasteners that are corrosion resistant as specified in the IRC, the IBC, and the Texas Revisions.

Table 1: Maximum Allowable Uniform Transverse Load (psf) – Type S Panels[1, 3]

Panel Core Thickness (in.)	Deflection Limit[2]	Panel Span (ft)									
		4[4]	8	10	12	14	16	18	20	22	24
3.5	L/360	100	43	29	21	16	10	-	-	-	-
	L/240	143	60	42	33	25	16	-	-	-	-
	L/180	143*	61*	57	46	34	22	-	-	-	-
5.5	L/360	105	52	39	30	24	18	15	11	-	-
	L/240	162	78	58	36	32	28	22	16	-	-
	L/180	191*	80*	60*	46*	40	34	29	21	-	-
7.25	L/360	120	61	60	42	34	26	21	15	13	11
	L/240	179*	85*	75*	61	50	39	31	23	21	18
	L/180	179*	85*	75*	69*	60*	50*	42	31	28	24
9.25	L/360	131	80	66	52	43	33	28	22	20	18
	L/240	168*	86*	71*	57*	51*	46*	42*	34	30	26
	L/180	168*	86*	71*	57*	51*	46*	42*	39*	37*	34*
11.25	L/360	132	94*	76*	51	50	48	38	28	24	20
	L/240	163*	94*	76*	59*	55*	51*	45*	39*	36*	31
	L/180	163*	94*	76*	59*	55*	51*	45*	39*	36*	33*

[1]Table values assume as simply supported panel with 1.5" of continuous bearing on facing at supports. Permanent loads, such as dead load, must not exceed 0.25 times the tabulated load. Panels us OSB surface splines not less than 7/16" thick inserted below the facing on each side of the panel.

[2]Deflection limit must be selected by the building designer based on the serviceability requirements of the structure and the requirements of the adopted building specifications.

[3]Tabulated values for 8' walls apply to panels constructed with the OSB strength axis oriented either parallel or perpendicular to supports. Tabulated values for other lengths are based on the strong-axis of the facing material oriented parallel to the span direction.

[4]Panels spanning 4' must be a minimum of 8' long spanning a minimum of two 4' spans. No single span condition is allowed.

[5]For wall panel capacities utilizing a zero bearing configuration, the allowable load must be determined using C_V=0.86.

*An asterisk (*) indicates the value shown is governed by the average peak load divided by 3.

Table 2: Maximum Allowable Uniform Transverse Load (psf) – Type I Panels[1, 3]

Panel Core Thickness (in.)	Deflection Limit[2]	Panel Span (ft)									
		4[4]	8	10	12	14	16	18	20	22	24
7.25	L/360	132	136	93	60	50	40	31	21	19	16
	L/240	318*	148*	107*	91	75	59	45	31	27	23
	L/180	318*	148*	107*	92*	87	78	60	41	36	30
9.25	L/360	197	164*	124*	72	67	61	48	34	29	24
	L/240	336*	164*	124*	107*	96	84*	70	49	43	36
	L/180	336*	164*	124*	107*	96	84*	76	65	56	47
11.25	L/360	258	143*	103*	86	83	77*	61	42	37	32
	L/240	318*	143*	103*	93*	85	77*	68	59*	54	46
	L/180	318*	143*	103*	93*	85	77*	68	59*	54	49*

[1]Table values assume as simply supported panel with 1.5" of continuous bearing on facing at supports. Permanent loads, such as dead load, must not exceed 0.25 times the tabulated load. Panels us OSB surface splines not less than 7/16" thick inserted below the facing on each side of the panel.

[2]Deflection limit must be selected by the building designer based on the serviceability requirements of the structure and the requirements of the adopted building specifications.

[3]Tabulated values for 8' walls apply to panels constructed with the OSB strength axis oriented either parallel or perpendicular to supports. Tabulated values for other lengths are based on the strong-axis of the facing material oriented parallel to the span direction.

[4]Panels spanning 4' must be a minimum of 8' long spanning a minimum of two 4' spans. No single span condition is allowed.

*An asterisk (*) indicates the value shown is governed by the average peak load divided by 3.

Table 3: Maximum Allowable Uniform Transverse Load (psf) – Type L Panels[1, 3]

Panel Core Thickness (in.)	Deflection Limit[2]	Panel Span (ft)									
		4[4]	8	10	12	14	16	18	20	22	24
3.5	L/360	103	45	33	24	18	11	-	-	-	-
	L/240	225	68	47	34	26	17	-	-	-	-
	L/180	297*	91	61	45	34	23	-	-	-	-
5.5	L/360	307*	129	57	42	34	25	20	15	-	-
	L/240	307*	182*	87	61	49	37	30	22	-	-
	L/180	307*	182*	112*	80	65	49	39	29	-	-
7.25	L/360	253	171	82	66	54	41	32	23	-	-
	L/240	288*	188*	128	100	81	61	48	35	-	-
	L/180	288*	188*	133*	117*	105	80	63	45	-	-
9.25	L/360	286	188*	117	101	80	58	47	36	32	27
	L/240	326*	188*	147*	134*	120	90	71	52	47	41
	L/180	326**	188*	147*	134*	121	108*	93	68	61	53
11.25	L/360	327*	188*	167*	141	116	91	75	58	47	36
	L/240	327*	188*	167*	153*	132	110*	97	83*	69	53
	L/180	327*	188*	167*	153*	132	110*	97	83*	83	70

[1]Table values assume as simply supported panel with 1.5" of continuous bearing on facing at supports. Permanent loads, such as dead load, must not exceed 0.25 times the tabulated load. Panels us OSB surface splines not less than 7/16" thick inserted below the facing on each side of the panel.

[2]Deflection limit must be selected by the building designer based on the serviceability requirements of the structure and the requirements of the adopted building specifications.

[3]Tabulated values for 8' walls apply to panels constructed with the OSB strength axis oriented either parallel or perpendicular to supports. Tabulated values for other lengths are based on the strong-axis of the facing material oriented parallel to the span direction.

[4]Panels spanning 4' must be a minimum of 8' long spanning a minimum of two 4' spans. No single span condition is allowed.

*An asterisk (*) indicates the value shown is governed by the average peak load divided by 3.

Table 4: Maximum Allowable Uniform Axial Load (plf) – Type S Panels[1, 2,3]

Panel Core Thickness (in.)	Panel Span (ft)					
	8	10	12	16	20	24
3.5	3500	2553	2453	2117	-	-
5.5	4250	4043	3373	3923	2817	2183
7.25	4917	4327	4473	4197	3497	3067
9.25	4600	4414	4228	4417	3389	3248
11.25	3889	3959	4028	4408	3837*	3333

[1]Splines consist of OSB surface splines not less than 7/16” thick inserted below the facing on each side of the panel. Permanent loads, such as dead load, must not exceed 0.50 times the tabulated load.

[2]Both faces must bear on the supporting foundation or structure.

[3]Tabulated values for 8’ walls apply to panels constructed with the OSB strength axis oriented either parallel or perpendicular to supports.

*Limited by 1/8" deflection (compression).

Table 5: Maximum Allowable Uniform Axial Load (plf) – Type L Panels[1, 2,3,4]

Panel Core Thickness (in.)	Panel Span (ft)					
	8	10	12	16	20	24
3.5	4723	3903	3273	2623	-	-
5.5	5850	5890	4227	4310	2933	2837
7.25	6807	6110	5557	5180	4837	4083
9.25	5473	5709	5946	5948	4729*	4250
11.25	5667	5474	5281	5775	4729*	4223

[1]Splines consist of #2 or better, Hem-Fir, 1.5" wide with a depth equal to the core thickness, spaced to provide not less than two members for every 48" of panel width. Permanent loads, such as dead load, must not exceed 0.50 times the tabulated load.

[2]Axial loads must be applied concentrically to the top of the panel through repetitive members spaced not more than 24" on center. Such members must be fastened to a rim board or similar member to distribute along the top of the SIP panel.

[3]Both faces must bear on the supporting foundation or structure.

[4]Tabulated values for 8' walls apply to panels constructed with the OSB strength axis oriented either parallel or perpendicular to supports.

*Limited by 1/8" deflection (compression).

Table 6: Maximum Allowable Axial Compression Point Loads (lbs) – Type S Panels[1, 2,3,4]

Top Plate Configuration	1-1/2" Minimum Bearing Width	3" Minimum Bearing Width
Single 2x4 #2 or Better Hem-Fir Plate (Refer to Figure 2)	2040	2450
Single 2x4 #2 or Better Hem-Fir Plate with 1-1/8" wide, 1.3E Rim Board Cap Plate (Refer to Figure 2)	4030	4678

[1]Top plate secured to facings.

[2]Permanent loads, such as dead load, must not exceed 0.50 times the tabulated load.

[3]Concentrated loads must be applied concentrically to the top of the panel.

[4]Tabulated values are based on the strong-axis of the facing material oriented parallel to the span direction.

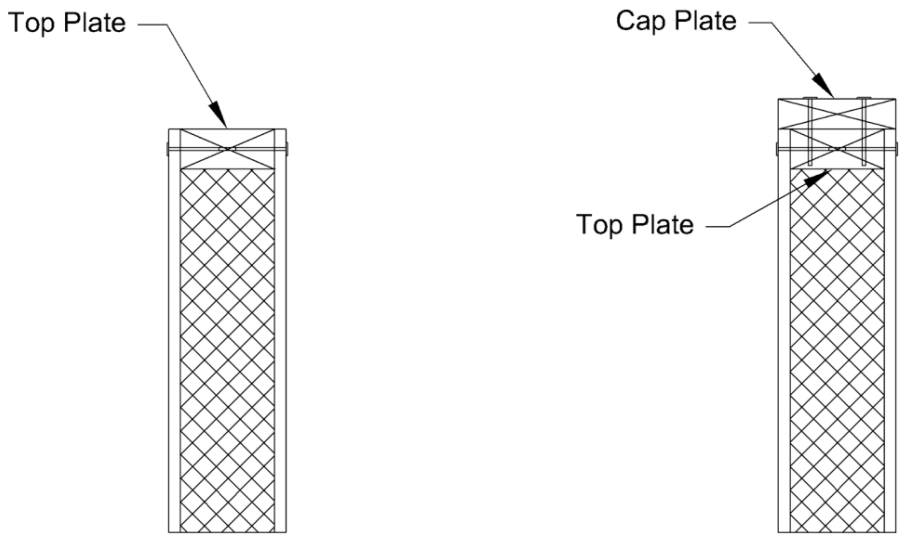


Figure 2. Top Plate Configurations.

Table 7: Maximum Allowable Uniform SIP Header Vertical Loads (plf); 3-1/2" through 11-1/4" Core Thickness[1, 2]

Header Depth[3] (in.)	Deflection Limit[4]	Header Span (ft)			
		4	6	8	10
12	L/480	740	384	228	142
	L/360	740	384	229	142
	L/240	740	384	229	142
18	L/480	798	574	385	311
	L/360	798	574	385	311
	L/240	798	574	385	311
24	L/480	886	629	429	361
	L/360	886	629	429	361
	L/240	886	629	429	361

[1]Vertical loads only. Lateral loads must be transferred to the edges of the opening through continuous plate(s) designed in accordance with accepted engineering practice. Permanent loads, such as dead load, must not exceed 0.50 times the tabulated load.

[2]Tabulated values are based on the strong-axis of the facing material oriented perpendicular to the direction of the heard span.

[3]Minimum depth of facing above opening.

[4]Deflection limit must be selected by building designer based on the serviceability requirements of the structure and the requirements of adopted building codes.

Table 8: Maximum Allowable Uniform SIP Header Vertical Loads (plf); (Panel Splice a minimum of 6" from edge of opening); 3-1/2" through 11-1/4" Core Thickness[1, 2]

Header Depth[3] (in.)	Deflection Limit[4]	Header Span (ft)			
		4	6	8	10
12	L/480	345	243	156	99
	L/360	450	295	190	125
	L/240	630	382	236	153
18	L/480	705	388	254	235
	L/360	750	482	302	281
	L/240	750	482	302	281
24	L/480	698	556	368	350
	L/360	896	556	368	350
	L/240	896	556	368	350

[1]Vertical loads only. Lateral loads must be transferred to the edges of the opening through continuous plate(s) designed in accordance with accepted engineering practice. Permanent loads, such as dead load, must not exceed 0.50 times the tabulated load.

[2]Tabulated values are based on the strong-axis of the facing material oriented perpendicular to the direction of the heard span.

[3]Minimum depth of facing above opening.

[4]Deflection limit must be selected by building designer based on the serviceability requirements of the structure and the requirements of adopted building codes.

Table 9: Allowable In-Plane Shear Strength (pounds per foot) for SIP Shear Wall Walls 3.5" through 11.25" core thickness[1, 2]

Spline Type[3]	Framing Minimum SG[4]	Minimum Facing Connections			Shear Strength (plf)
		Chord	Plate	Spline	
Block, Surface or Lumber Spline (Type S, Type L)	0.50	0.113" x 2-1/2" nails, 6" on center	0.113" x 2-1/2" nails, 6" on center	(7/16" thick, 3" wide spline) 0.113" x 2-1/2" nails, 6" on center	410
	0.50	0.113" x 2-3/8" nails, 6" on center stagger (2 rows)	0.113" x 2-3/8" nails, 6" on center	(7/16" thick, 4" wide spline) 0.113" x 2-3/8" nails, 6" on center	460
	0.42	0.113" x 2-3/8" nails, 6" on center stagger (2 rows)	0.113" x 2-1/2" nails, 4" on center stagger (2 rows)	(7/16" thick, 4" wide spline) 0.113" x 2-3/8" nails, 4" on center	700
	0.42	0.113" x 2-3/8" nails, 6" on center stagger (2 rows)	0.148" x 2-3/8" nails, 3" on center	(23/32" thick, 4" wide spline) 0.148" x 2-3/8" nails, 3" on center stagger (2 rows)	1000

[1]Shear strength values, as published in this table, are limited to assemblies resisting wind when the aspect ratio (height: width) does not exceed 2:1.

[2]Chords, holddowns and connections to other structural elements must be designed by a registered design professional in accordance with accepted engineering practice.

[3]Spline type at interior panel-to-panel joints only, solid chord members are required at each end of each shearwall segment.

[4]Required connections must be made on each side of the panel. Dimensional or engineered lumber must have an equivalent specific gravity not less than specified.

Table 10: Allowable In-Plane Shear Strength (pounds per foot) for SIP Shear Wall Walls 3.5" through 11.25" core thickness[1, 2]

Spline Type[3]	Framing Minimum SG[4]	Minimum Facing Connections			Shear Strength (plf)
		Chord	Plate	Spline	
Block, Surface or Lumber Spline (Type S, Type L)	0.50	0.113" x 2-1/4" nails, 6" on center	0.113" x 2-1/4" nails, 3" on center	(7/16" thick, 3" wide spline) 0.113" x 2-1/4" nails, 6" on center	360
	0.50	0.113" x 2-1/4" nails, 6" on center	0.113" x 2-1/4" nails, 6" on center	(3/4" thick, 3" wide spline) 0.113" x 2-1/4" nails, 6" on center	360
	0.50	0.113" x 2-3/8" nails, 3" on center stagger (3/8" edge distance and 3/4" edge distance)	0.113" x 2-3/8" round head nails, 3" on center stagger (3/8" edge distance, 3/4" edge distance)	(23/32" thick, 3" wide spline) 0.113" x 2-3/8" nails, 3" on center stagger (3/8" edge distance, 3/4" edge distance)	720
	0.50	0.113" x 2-3/8" nails, 2" on center stagger (3/8" edge distance and 3/4" edge distance)	0.113" x 2-3/8" round head nails, 2" on center stagger (3/8" edge distance, 3/4" edge distance)	(23/32" thick, 3" wide spline) 0.113" x 2-3/8" nails, 2" on center stagger (3/8" edge distance, 3/4" edge distance)	920

[1]Shear strength values, as published in this table, are limited to assemblies resisting wind where the aspect ratio (height: width) does not exceed 1:1 for Type S panel connections or 2:1 for Type L panel connections.

[2]Chords, holddowns and connections to other structural elements must be designed by a registered design professional in accordance with accepted engineering practice.

[3]Spline type at interior panel-to-panel joints only, solid chord members are required at each end of each shearwall segment.

[4]Required connections must be made on each side of the panel. Dimensional or engineered lumber must have an equivalent specific gravity not less than specified.

Table 11: Maximum Allowable In-Plane Shear (Pounds per Foot) for Diaphragms Subjected to Wind[1]

Minimum Connections[2]				Shear Strength	Max. Aspect Ratio
Interior Supports[2]	Surface Spline[3]	Boundary[4]			
		Support	Spline		
PBS #14 Panel Screw with 1" penetration 12" on center	0.113" x 2-1/2" nails, 3" on center 7/16" x 4" OSB Spline	PBS #14 Panel Screw with 1" penetration 12" on center	0.113" x 2-1/2" nails, 6" on center	430	4:1
PBS #14 Panel Screw with 1" penetration 12" on center	0.113" x 2-1/2" nails, 3" on center, 2 rows, staggered 7/16" x 4" OSB Spline	PBS #14 Panel Screw with 1" penetration 3" on center	0.113" x 2-1/2" nails, 4" on center	530	4:1
PBS #14 Panel Screw with 1" penetration 2" on center	0.113" x 2-1/2" nails, 3" on center, 2 rows, staggered 7/16" x 4" OSB Spline	PBS #14 Panel Screw with 1" penetration 2" on center	0.113" x 2-1/2" nails, 1-1/2" on center	750	4:1
PBS #14 Panel Screw with 1" penetration 4" on center	0.113" x 2-1/2" nails, 3" on center, 2 rows, staggered 7/16" x 4" OSB Spline	PBS #14 Panel Screw with 1" penetration 4" on center	0.113" x 2-1/2" nails, 3" on center	915	3:1
PBS #14 Panel Screw with 1" penetration 4" on center	0.113" x 2-1/2" nails, 6" on center, 2 rows, staggered 23/32" x 4" OSB Spline	PBS #14 Panel Screw with 1" penetration 4" on center	0.113" x 2-1/2" nails, 6" on center	1130	3:1

[1]The maximum diaphragm length-to-width ratio must not exceed 4:1. Load may be applied parallel to continuous panel joints.

[2]Interior supports must be placed not to exceed 12' on center and have a minimum width of 3-1/2" and a specific gravity of 0.42 or greater. Specified fasteners are required on both sides of panel joint where panels are joined over a support. Refer to Figure 3a.

[3]Top spline only, at interior panel-to-panel joints. Specified fasteners are required on both sides of panel joint. Refer to Figure 3b.

[4]Boundary spline must be solid 1-1/2" wide, minimum, and have a specific gravity of 0.42 or greater. Boundary supports must have a minimum width of 3-1/2" and as specific gravity of 0.42 or greater. Specified spline fasteners are required through both facings. Refer to Figure 3c.

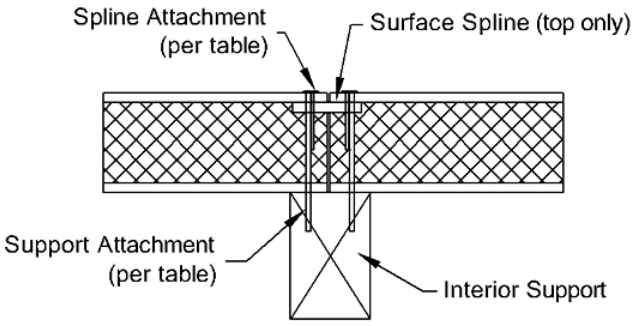


Figure 3a. Interior Support

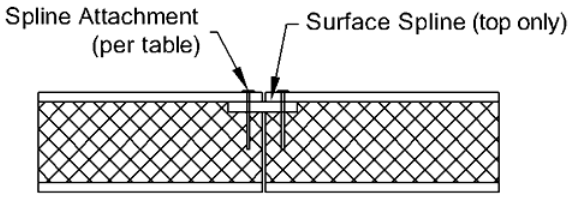


Figure 3b. Surface Spline

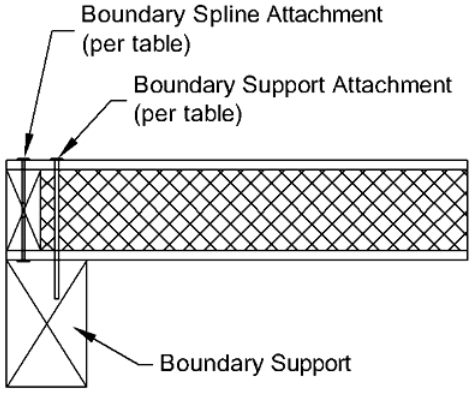


Figure 3c. Boundary

Figure 3. Diaphragm Connection Types